

A Work Project presented as part of the requirements for the Award of a Masters Degree in  
Management from NOVA - School of Business and Economics



BUSINESS PLAN FOR  
“PROCO – A PROJECT COOPERATION PLATFORM”

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## Abstract

### **Business Plan for “PROCO – A Project Cooperation Platform”**

This work project presents a business plan about the project cooperation platform called PROCO. The business aim is to connect business students, educational institutions and organizations through real-world industry challenges that are embedded in the students' curriculum. Based on extensive research, a business concept and strategy for the upcoming 24 months have been developed to guide PROCO towards operations in the Germany market.

Business Plan \* Platform \* Project Cooperation \* Experiential Learning

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## 1. Executive Summary

Problem: PROCO identified a mismatch of student's education and professional experience. The problem is based on the complexity of potential short-term cooperations between educational institutions and organizations, due to inefficient processes, visibility, and resources.

Business Concept: Through a multi-sided platform, PROCO brings together students, educational institutions and organizations to work on real industry problems through project cooperations that are embedded in the students' curriculum. With the facilitation of short-term course cooperations, students learn new skills and grow their professional network. The educational institution thereby offers a modern and motivating course environment, while organizations benefit from fresh insights and the attraction of young talents. The revenue model builds on a freemium based model for educational institutions and a subscription-based model for organizations.

Market Analysis: Germany proves to be the perfect starting market due to its size, economic power, and market trends. With a serviceable obtainable market (SAM) of 3.800 business students and a student recruitment value of €15m, PROCO will emphasis on business schools as well as startups and large enterprises for its starting period. The direct competition within Europe from platforms with a similar business model is low, while there is high indirect competition from traditional recruitment and cooperation tools such as career fairs, job portals, campus visits, and co-creation platforms.

Growth and Marketing Strategy: With a four-stage growth strategy, PROCO plans to reach over 4.000 users by the end of 2020. The development and testing of the platform will get supported by four key partnerships from the academic and professional side. The marketing strategy strongly relies on cold acquisition and social media advertisements.

Financial Plan: A necessary investment of around €25.000 is required for launching the platform in September 2019. The financial model projects a positive cash-flow by the third quarter of 2020, with companies being the primary source of revenue.

Operations and Management Roles: The PROCO team consists of three young professionals and four advisors, with backgrounds stemming from startup, education and software engineering. With the diversity of our team, the geographical locations, and the plethora of professional networks, a dominant market base will be established.

## 2. Methodology

The development of the business plan for PROCO is based on the Lean Startup Methodology, and its lean startup templated called Business Model Canvas. According to the methodology, the focus was on validated learning and development through a build, measure, learn cycle, and their iteration. This process helps to understand which features are valued by customers to find the product market fit (Ries, 2011). To discover if there is a problem and need for the business idea, 13 direct interviews with organizations and educators were accomplished. During the European Innovation Academy, the concept was further developed and validated based on additional direct interview loops. In a next step, the idea got tested in an Advance Marketing Course at Nova School of Business and Management with a Minimum Viable Product (MVP). The testing consisted of five companies, one professor and 26 students and was validated through feedback surveys and direct interviews. Next, to the gathered feedback, additional data, and market research were accomplished.

Context	Type of analysis	Phase	Interviewee	Type of recordings
Open Innovation course of Nova SBE	Direct Interview	Ideation	8 organizations 3 educators	Notes
European Innovation Academy	Direct Interview	Problem/Solution identification	9 organizations 3 educators	Notes
Testing Phase-Advanced Marketing course of Nova SBE	Survey	Initial market validation	5 organizations 23 students	Report
Testing Phase-Advanced Marketing course of Nova SBE	Direct Interview	Initial market validation	2 organizations 1 student	Notes

## 3. Problem and Background

*“For the things we have to learn before we can do them, we learn by doing them.”* (Aristotle, 2004)

By being a student, you face the challenge of obtaining the best possible education and business experience to accelerate your career and to build a profile that will promise you to land a position within a company that suits your individual aspirations best. The reality is that the two worlds, of education and business experience are somewhat detached. These two worlds do not go at the same speed. PROCO is envisioned to keep them in sync and resolve inefficiencies in the knowledge exchange that affects three stakeholders: students, educators, and organizations. These stakeholders face the following problems:

- Students with a business and economic background have difficulties getting the necessary qualifications, experience, and network to break into their industry of choice. While some students may obtain internships, not all skills may apply to growth and knowledge.
- Educators have difficulties updating their teaching as industries change quickly. Furthermore, professors have a hard time integrating real-life business cases in the curriculum of their students, due to time-consuming and inefficient processes and insufficient resources to engage in the search for the cases/problems.
- Organizations are competing for talent, and they need to be visible to students. The investment is towards stronger collaboration with universities, but the scale is a problem, how to reach more universities and manage complex relationships, always passing the message of being the place one would like to work in.

PROCO is envisioned as a multi-sided platform that solves these problems. It provides students, educators, and organizations a place for advanced interaction through real challenges and applied projects that go beyond classroom boundaries and theoretical discussion.

The PROCO concept emerged during the Open Innovation course at Nova School of Business and Economics in spring 2018. After developing the first concept, Johannes Spielberger and Moritz Wilhelm participated successfully at the Nova Idea Competition in May'18. They placed first and won a scholarship for the European Innovation Academy (EIA) in Cascais. During the EIA - a three-week accelerator program -, they worked closely together with mentors from Silicon Valley, Daimler and Google to further develop the business model. At the EIA, the team acquired with Rui Borges, a third member, and IT expert. After completing the EIA as one of the winning teams, PROCO started its first MVP (Minimum Viable Product) testing in cooperation with Nova SBE and six partner organizations in September 2018. The feedback helped to gain a better understanding of the project cooperation process as well as the needs of key stakeholders. The launch of the PROCO platform is planned by mid-2019 in the German market.

#### 4. Business Concept

PROCO is designed as a multi-sided platform. In the first stage of its development, it allows: 1) educators to request problems for their course projects; 2) organizations to propose problems to educators; 3) students to collaborate and deliver projects through the platform. The value created to educators is in the efficiency in finding meaningful and applied problem for projects,

as well as in modern teaching style that was previously unfeasible. The value created to organizations is in the insights from collaboration and a possibility to attract new talent by bringing closer the reality of the organizations to students. The value created to students is in providing experimental learning which forces students to deal with real issues in a direct and motivating learning situation. (McCarthy & McCarthy, 2006).

#### 4.1 Vision & Mission

PROCO is building a bridge between traditional education and industry knowledge, to deliver the most significant value for future leaders. Therefore, PROCO follows the vision to *be the leading educational project cooperation platform in Europe*.

The company's mission is to *provide talents with the knowledge and experience they need, to be relevant on the market and land the jobs of their dreams*.

#### 4.2 Concept

The offered concept of the platform covers all steps from the creation, over the execution, until the closure of short-term project cooperations. The platform structure including all services and tools are built around that process to deliver the highest value to every single stakeholder. The typical platform process is described in the following five steps:

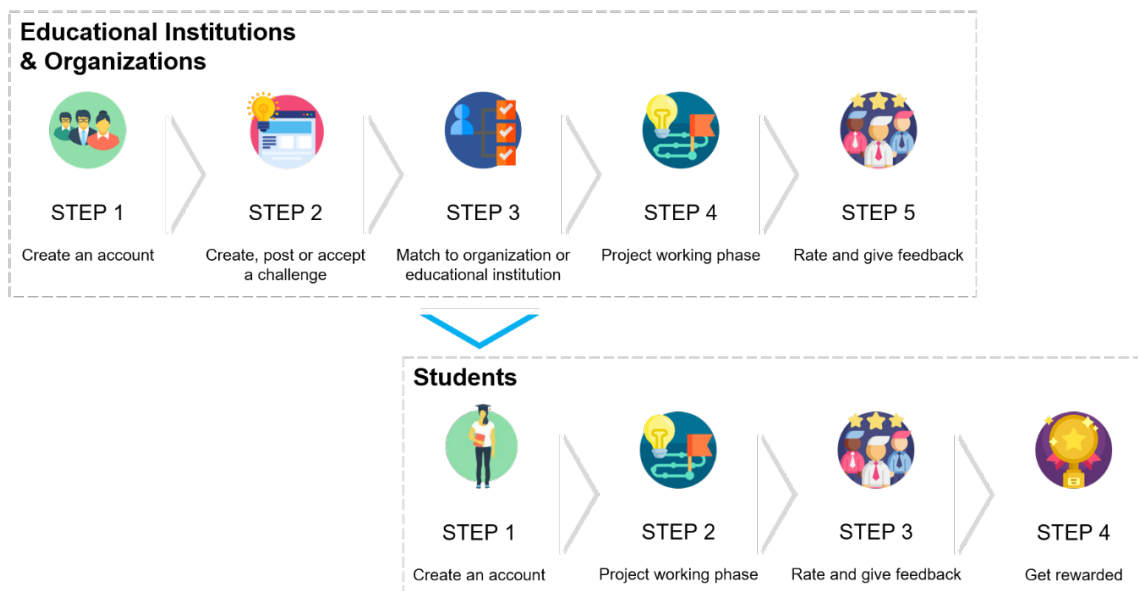


Figure 1: PROCOs Process & Steps

**Step 1:** Collaborations are initiated from the educators or the organizations' side. Before an educator or professional can register, an institutional/organizational account has to be activated. Afterwards, a(n) educator/professional account can be created, which links to the institution/organization profile.

Step 2: Every educator or professional can create and post a challenge or accept an open project from the marketplace. To help to define a valuable project, PROCO offers special content management tools and services (see figure 2).

Step 3: When a project gets posted onto the marketplace, PROCO actively searches for cooperation partners. Interested parties can also review published challenges and contact potential partners. When it comes to a successful matching, the educator can present the project partnerships to its students.

Step 4: During the execution of the project, the student(s) will hold meetings with the organization and is provided with input about the specific project challenge. To simplify the working phase between the different stakeholders, PROCO offers several project management tools like a process- and task manager or a feedback tool.

Step 5: After each project cooperation, a feedback and rating evaluation takes place to learn, improve and evaluate the work. Moreover, every student earns a certificate for completing a project, which can be added to the CV. On the other hand, the organization gained new insights from the project and may have found a new employee.

### 4.3 Structure and Tools

The concept and process of PROCO is separated in different sections and gets supported with tools to allow easy and successful cooperations. The platform provides functions in the three sections: project marketplace, profile portal, and jobs.

- Project Marketplace: The marketplace is clustered into “educational” and “organization” challenges. This allows a good overview and easy search for collaborations from the individual partners.
- Profile Portal: Each educational institution and organization has its profile, with a short description, open projects, and top engagements. Furthermore, every student, educator and professional needs an individual account to engage on the platform. All profiles include a project history, while students can additionally add their CV to be more attractive for recruiters.
- Jobs: In the job section, organizations can announce open job positions specifically for students. This can include internships, working student jobs, and entrance positions. The tools and services offered by PROCO comprise the three fields of Content Management, Project Management, and Data Analytics (see figure 1).




 <b>CONTENT MANAGEMENT</b>	<ul style="list-style-type: none"> <li>• Templates</li> <li>• Project library</li> <li>• Project consulting (premium services)</li> <li>• Project writing (premium services)</li> </ul>
 <b>PROJECT MANAGEMENT</b>	<ul style="list-style-type: none"> <li>• Process and Tasks Management</li> <li>• Chat</li> <li>• Feedback tool</li> <li>• Integration of Slack, Trello and cloud services through plug-ins</li> </ul>
 <b>DATA ANALYTICS</b>	<ul style="list-style-type: none"> <li>• Project-performance tracking</li> <li>• Student skill developing analysis</li> <li>• Project attractiveness analysis</li> <li>• Profile attractiveness analysis</li> </ul>

Figure 2: Tools and Services of PROCO

#### 4.4 Value Proposition

Unlike traditional educational-course projects, PROCO adds individual value to all stakeholders involved in the cooperation, by reducing time, resources and money.



Figure 3: Benefits of PROCO

#### Value for Students

- **Gain valuable work experience:** Through project cooperations, students will have the possibility to gain new skills that matter in the future work life. From communicating in a professional environment over time management on to how to make a research and analysis.
- **Gain industry knowledge:** By analyzing a real-world challenge and collaborating with an organization, students will gain specific knowledge in the organization's industry. This will give him a better understanding of the job area and industry.
- **Expand organization network:** With the project cooperations, PROCO offers an easy way to expand the professional network of students. Due to the LinkedIn global survey, a professional network is a key element for career success, while more than 70% got hired at an organization where they had a connection (Pavela, Garlinghouse, Hurst, & Adam, 2016).

- Time and focus to study: Through in-class project collaborations, students will not be required to making trade-offs between studying and working at the same time to gain professional experience.

#### Value for Educators

- Increasing student's motivation: With a learning by doing approach and projects that go behind classrooms boundaries, educators offer a motivating and valuable learning experience, while staying updated to current industry and teaching trends.
- Facilitation of class-projects: PROCO helps to easily setup, engage and control collaborations with industry partners, without relying on the educator's network.
- Connect with industry partners: For every educational institution, industry partners are an important driver for gaining funding, doing research and driving innovation. PROCO helps educators and educational institutions to enhance their network by bringing new and existing partners together.

#### Value for Organizations

- Access and test the best talents: By engaging in a real-life project with students, organizations have the opportunity to access and test top talents. This allows to reduce the asymmetric information between the organization and the applicant tremendously and saves the organization HR expenditures in acquiring the best talents.
- Research and solutions: With the course theory and the educator as a mentor in the back, students will tackle the organizations challenge in a secure surrounding. Since students face a different environment, they see things from a different perspective and may come up with results, which professionals might not have thought of.
- Promote brand awareness: The battle for the best talents is hard and often only the largest organizations make it into the minds of students. PROCO offers an opportunity to position the organization in an attractive engagement and to assert the company against top players.

### 4.5 Revenue Streams & Monetization

The PROCO platform involves three different stakeholders, with different needs, intentions, and purchasing power. Therefore, PROCO offers each stakeholder an individual pricing model, tailored to their characteristics.

Students: Students are the key source of the platform to attract organizations and to do the main work in the cooperation projects. To increase the number of students as fast as possible and due to their price sensitivity, students will not face any cost to access and use the platform.

Educators: Research has shown that educational institutions are rather critical regarding new paying services. Therefore, the educational institution will not face any costs during the launching period. In the long run, a Freemium Model will be implemented. The “free” version includes three free project cooperations per educator, an unlimited user number as well as content and project management tools. With the offered settings, the free version can perfectly be tested by every educator of an institution. If the platform appeals attraction, the institution can upgrade the educational account into a “premium” version.

The premium price is based on the number of students studying at the institution. Up to 500 students, a minimum price of €2.000 per semester is charged. For each additional 500 students, an extra amount of €1.000 is imposed. Regarding features, the “premium version” includes all the free features, but is not restricted to the number user accounts. Furthermore, a full data analytics set is offered to premium accounts with portal- and project reports & analytics.

FREE	PREMIUM
0€ per semester	Starting at 2.000€ per semester
<ul style="list-style-type: none"> <li>• 3 project cooperation's per user</li> <li>• Branded educational institution portal</li> <li>• Content management</li> <li>• Project management</li> </ul>	<ul style="list-style-type: none"> <li>• Unlimited project cooperation's</li> <li>• Unlimited users</li> <li>• Branded educational institution portal</li> <li>• Content management premium</li> <li>• Project management</li> <li>• Data analytics</li> </ul>

Figure 4: Pricing structure of educational institutions

Organizations: Organizations are the primary source of income in the revenue model of PROCO. Organizations can choose between a pay-per-use or a subscription-based model.

The pay-per-project option is a perfect opportunity for new organizations to test the platform. Also, it allows organizations that do not have the continuous availability of resources and the need for recruiting young talents, to engage in collaboration with students, like small and medium-sized enterprises. The price starts at €300 and ranges to €1.000 based on the scope and length of the project as well as the level of students. Organizations will only be charged after it comes to a successful match. With the project-based option, the organization can set up a branded organization profile as well as to use the content & project management tools.

The organization's "corporate" version is based on a subscription model and offers premium features. With a price of €6.000 per semester, it does not have any limitations concerning project engagements, users and job positions. In addition, the corporate package includes a sponsored profile in search results & recommendations as well as project writing and consulting.

PAY PER PROJECT	CORPORATE
Starting at <b>300€</b> per project	<b>6.000€</b> per semester
<ul style="list-style-type: none"> <li>• 1 project cooperation</li> <li>• 1 management account</li> <li>• Branded company profile</li> <li>• Content management</li> <li>• Project management</li> </ul>	<ul style="list-style-type: none"> <li>• Unlimited project cooperations</li> <li>• Unlimited users</li> <li>• Unlimited job postings</li> <li>• Branded company profile</li> <li>• Content management premium</li> <li>• Project management</li> <li>• Data analytics</li> <li>• Sponsored profile in search results &amp; recommendations</li> </ul>

Figure 5: Pricing structure for companies

## 5. Market Analysis

### 5.1 Target Customers

As an early stage startup, it is essential for PROCO to set a clear customer target and market before scaling into other areas. Therefore, PROCO is focusing on students, educators, and organizations with an emphasis on business and economics in the German market. The field of business and economics offers not only the highest amount of students but also the broadest range of career opportunities and does not rely on the scale and industry of an organization. Furthermore, Germany offers over 2,8 million students, 429 universities and 3,5 million companies the largest group of potential stakeholders in Europe. In addition, it is the strongest economy in Europe with a GDP of €3,263bn (2,2% growth) and a low and stable unemployment rate of 3,7% (Bozoyan, 2018). The following paragraphs give a more precise analysis of PROCO stakeholders in the German market.

Students: PROCO targets business and economic students that are pursuing a bachelor's or master's degree at an institute of higher education. The term of business and economic students indicates but is not limited to the areas of management, economics, finance, marketing, e-commerce as well as data and information science. There are several reasons for targeting these specific educational areas. Business and economic students are facing the highest amount of graduates, which leads to high competition among graduates on the job market (Statistisches Bundesamt, 2017). Therefore, it is important for students to stand out of the crowd, gain professional experience as early as possible and build a good network (Roulin & Bangerter,

2013). Moreover, the demand for business and economic students is high and continues to grow, which makes them an attractive target for organizations (Statistik der Bundesagentur für Arbeit, 2018).

Within Europe, Germany is the country with most students. During the winter semester of 2017/2018, 2.85 million students were enrolled at institutions of higher education. These are two percent more than in the previous year and almost 50 percent more than ten years ago (Statistisches Bundesamt, 2018). Regarding university graduates, over 492.000 students finished in 2016. Considering the area of business and economics, PROCO faces a student target market of over 543.000 students, which represent nearly 20 percent of all students in Germany (Statistisches Bundesamt, 2018). Over 131.000 business students graduated in 2016 and were looking for an entry position (Statistik der Bundesagentur für Arbeit, 2018).

Educators: The institutions of higher education and their educators play a significant role in the business model of PROCO. They serve as multipliers for students, have an existing industry network and are a crucial part of the project cooperations. Therefore, it is important to address and convince the key decision makers of higher education:

- Educators (professors and lectures) being the bridge between students and staff
- Academic director being the bridge between professors and the institutional management
- Academic cooperation being the bridge between the institution and their industry network

In Germany, 429 higher education institutions are consisting of public and private institutions. The German higher education system is composed of five different kinds of institutions. PROCO is only focusing on traditional universities and universities of applied science (Fachhochschule), due to its business emphasis (Statistisches Bundesamt, 2018). These two institutes are distinguished by the fact that universities have a stronger theoretical academically approach, while universities of applied science focus stronger on professional application with practice-oriented academic courses (European Consortium for Accreditation, 2017). Out of the 429 higher educational institutions in Germany, 106 are universities and 215 universities of applied science. Based on research, it can be estimated that at least 60% of the 321 institutions offer business related course subjects. PROCO has defined a high potential target list of 92 higher educational institutes, consisting of 61 universities, 33 universities of applied science.

Organizations: For PROCO, organizations are not only the primary source of income, they also serve as a magnet to attract students and educators to the platform. Based on customer research, students showed the most significant interest in cooperating with startups<sup>1</sup> and large enterprises<sup>2</sup>. Likewise, from the organization's side, startups and large enterprises showed the highest interest in the services of PROCO. SMEs indicated to have difficulties in the management of project cooperations and recruitment needs. Startups, on the other hand, value the inexpensive research and solutions, whereas large enterprises see high potential regarding recruitment and employer marketing. Additionally, the initial test phases showed, that start-ups are relatively easy to attract for project cooperation, but that their willingness to pay is significantly lower than the one of large enterprises. In this context, PROCO targets startups with a minimum of €250.000 in revenues and large enterprises in Germany, from all kind of industry sectors. As the primary contact persons and decision makers for cooperation projects on the part of organizations, the Human Resource and Talent Management departments have been identified.

As the largest and one of the most sustainable economies in Europe, the German economy registers over 3.5 million companies, according to the German Federal Statistical Office. Thereof 90% account for less than ten employees. However, half of the generated turnover in Germany was accomplished by PROCOs main company target group of large enterprises, which make-up around 15 thousand companies (Statistisches Bundesamt, 2018). Around 850 German startups are potential startup targets, with a minimum revenue of €250.000.

## 5.2 Market Potential

The following market potential analysis of PROCO contains three different perspectives: Total Available Market (TAM), Serviceable Available Market (SAM) and Serviceable Obtainable Market (SOM). The estimation of each market size is calculated by multiplying the number of students with the average expenditure per recruitment. (Horton, 2018) Based on several studies, it can be estimated that organizations spend on average €3.983 in recruiting new employees. (SHRM, 2017) (NACE, 2016) The costs include the most common hiring expenses: the hiring team, career events, job board fees, background checks, onboarding and training, and career page.

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<sup>1</sup> "Startups" are defined by: Being less than 10 years old, are (highly) innovative with their technology and/or their business model and have (strive for) a significant increase in employees and/or sales (target)

<sup>2</sup> „Large Enterprises“ are defined by: Having more than 250 persons employed or more

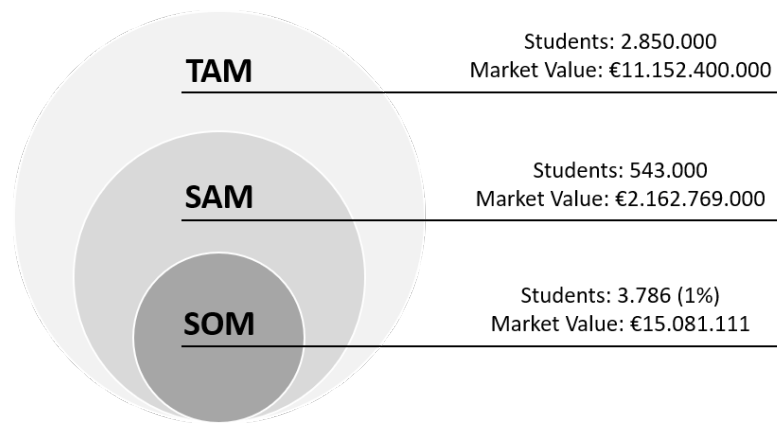


Figure 6: Market Potential of PROCO

**TAM - Total Available Market:** The TAM expresses the potential market value of PROCO if every organization in Germany would use the platform to connect and recruit students. Based on an average cost per hire of €3.983 and a potential market of 2.86m students, a market value of over €11.2bn can be estimated.

**SAM – Serviceable Available Market:** SAM indicates the segment of TAM targeted by PROCOs service in Germany. With over 543.000 students, the study area of business and economic indicates a market value of €2.2bn.

**SON - Serviceable Obtainable Market:** As PROCO cannot obtain the whole SAM, due to restrictions and barriers (resources, marketing reach), the SON reflects the number of potential customers, that the platform can realistically serve. The goal of PROCO is, to win 1% of all business and economic students within the next two years, which accumulates for 3.800 students and a potential market value of €15m.

### 5.3 Market Barriers

For PROCO, several barriers to market entry have to be considered to launch the platform business successfully. The following describes the most significant barriers:

- **Network effect:** PROCO consists of multi-sided markets, with a network of students, educators, and organizations. The number of participants can have a substantial impact on the other side, which is described as the cross-side network effect. Network effects refer to the impact a number of users of a platform have on the value created for each user. A mismatch can lead to an adverse network effect, regarding growth and the value of the platform (Parker, van Alstyne, & Choudary, 2016).
- **Chicken-or-egg problem:** The platform has to overcome the chicken-or-egg problem in its growth phase. The chicken-or-egg problem describes, which market side should be

attracted first and how to attract one without the others (Parker, van Alstyne, & Choudary, 2016).

- Client acquisition costs of a multi-sided platform: PROCO has to establish and market the platform to three different stakeholders with different intentions and needs. Therefore, significant sunk investments in advertising, content, and sales are needed to attract and engage users for projects (Collyer, Mullan, & Timan, 2017).
- Raising competition for student engagements: The declining working-age population and skills mismatch in Germany are intensifying the recruitment industry. Therefore, the competition for the best talents is rising and forces recruitment companies to increase the investments in innovative recruitment solutions (Euromonitor, 2017).
- Switching costs: New customers are facing switching costs concerning the areas of lost data and learning curve by converting to PROCO. By changing to PROCO, customers will suffer a loss of data as it is not possible to transfer data from another platform. Moreover, customers have to learn the platform processes to gain the most value out of project cooperations (Amarsy, 2015).

## 5.4 Competition

The competitive analysis considers the current market situation of student recruitment and co-creation engagements in Germany. As there are many companies with different services that tap into PROCOs market, the competitive landscape is classified into the fields of low/high skill assessment and recruitment efficiency. Through this classification, the competition can be divided into direct and indirect competitors.

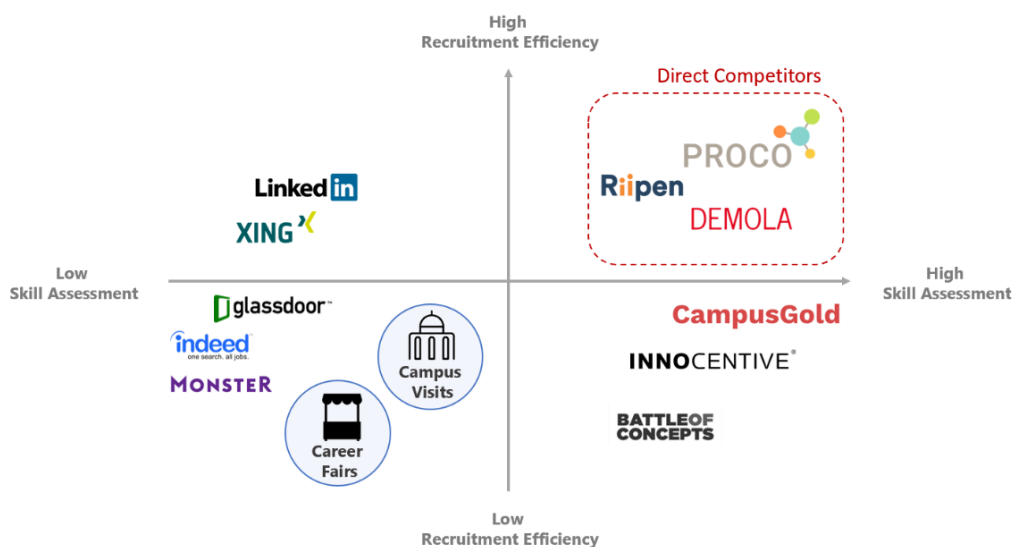


Figure 7: Competitive Landscape



Indirect competition: Traditional recruitment tools such as Career Fairs, Job Portals, and Campus Visits are the classical way to find future talents. By focusing on what is written in the student's CV, traditional recruitment tools succeed a rather low recruitment efficiency with low skill assessment. Digital recruitment tools such as LinkedIn or Xing provide a higher recruitment efficiency score but are low on skill assessment. On the other side, there are co-creation platforms such as Innocentive and CampusGold with a high skill assessment, but with less recruiting intentions and efficiencies.

Direct competition: Regarding direct competition, PROCO is the only platform-based business that merges student recruiting with co-creation in Germany. Through this unique model, PROCO provides a tool that combines high recruitment efficiency with top skill assessment.

Within Europe, PROCO faces direct competition from Demola, a Finnish company that facilitates multidisciplinary co-creation projects between students, universities, and organizations. The company operates in ten European countries and partners with 34 universities. In an 8-week project, a multidisciplinary team of students and professionals works closely together on developing an innovative project. In contrast to PROCO, Demola has a strong co-creation focus, in whose projects every student - regardless of its study focus and education level - of a participating university can apply to. The projects are carried out using the "Demola method", which consist of a clear structure and schedule by using a mix of design thinking, scenario approaches, and demo-building. (Demola, 2018)

In an international perspective, PROCO faces the most significant competition from Riipen, a Canadian startup founded in 2014. Riipen offers an experiential learning platform, which follows a similar platform-based business model, that provides students with the ability to gain real-world experience through short-term, skill-specific industry projects and challenges. With North America as the primary target market, Riipen has accomplished over 15.000 finished project corporations, formed a network of 150 academic institutions and over 10.000 companies. Recently, the startup announced it plans to expand to Australia, New Zealand, and Europe. Concerning the value capturing, Riipen offers a technology platform which gives the ability to scale a project work between students, universities, and companies. While students and universities are the main base of the ecosystem, companies are charged \$500 to \$1,000 per project or can buy a package for \$15,000 to \$50,000 to be part of this system. Academic institutions can manage and analyze the company's cooperation, project outcomes and student's skill development for an annual software licensing fee between \$25,000 to \$100,000 annually, based on student enrollment. (Werb, 2018) (Riipen, 2018).

## 6. Growth and Marketing Strategy

### 6.1 Growth Strategy

The launch and growth strategy of PROCO focuses on reaching the critical mass, which is defined as “the point where the value of the network exceeds the cost of joining for most users. Once a network reaches sufficient size, its network effects start to pull in new users and growth takes off.” (Moazed & Johnson, 2016). The strategy is based on four stages, while PROCO is putting a stronger emphasis on educational institutions during the whole process as they serve as multiplier in terms of user acquisition and commitment:

Stage 1 - Developing and testing phase (until August'19): With the aim of developing a satisfying product for all stakeholders, PROCO is cooperating with four strategic partners: Nova School of Business and Economics, Instituto Politécnico de Setúbal, Mediadesign Hochschule Munich and Build Up Labs. The partnerships allow a fast build, measure, learn cycle based on the Lean Startup Methodology to build a platform, which fulfills the need of its users. The partnerships do not only serve for testing purposes, but also for collaboration. PROCO gets support in software development, graphical and communicational design by the Instituto Politécnico de Setúbal and Mediadesign Hochschule Munich. Next, the company is focused on acquiring higher educational institutions and organizations for the launch of the platform.

Stage 2 – Platform launch (September'19 to December'20): For the launch of the platform, PROCO puts its emphasis on private business schools and organizations, including high-value users like WHU – Otto Beisheim School of Management or organizations like Microsoft, Deloitte or Deutsche Bank. As research has shown that educational institutions have been discouraged by the costs of the platform, the monetarization on the academic side will be left out during the first stage. With a starting network of four higher educational institutions, PROCO will follow a strong sales and service approach to find the best matching organizations for proposed project challenges. Furthermore, the acquisition of a long-term organizational partnership with multinational organizations from the areas of consulting, banking and tech area will be intensified. On the startup side, PROCO is aiming for cooperations with Accelerators and Incubators, that pay for project collaborations of their startup network. Based on estimations, the scale of the launching phase will cover five educational institutions with an average of two courses per institution participating in projects in a study-term. Each class project is estimated to consist of six groups á five students. As a result, the platform will reach

a total of 240 students, participating in 48 single paying company collaborations by the end of 2019 (see appendix 3).

Stage 3 – Scale phase (from January’20): In the third stage, PROCO focuses on scaling the user base up to 760 percent by the end of 2020. With 14 universities, 193 organizations and 1044 project cooperations, the student user base increases exponentially to 2100 (see figure 8). Due to the specific platform structure, the user acquisition of the platform does strongly rely on the user commitment of educators. Therefore, the monetization of educational institutions will be combined with a growth strategy, that will enhance educator’s collaboration engagement. Each educational institution with a “premium account” will receive €50 in credit as an incentive for every completed project collaboration. It can be assumed, that the project incentives will positively affect the number of operating courses, which will slowly increase from two up to six classes by the end of 2020. Moreover, the transformation from a sales and services approach towards an automated technology platform will be driven.

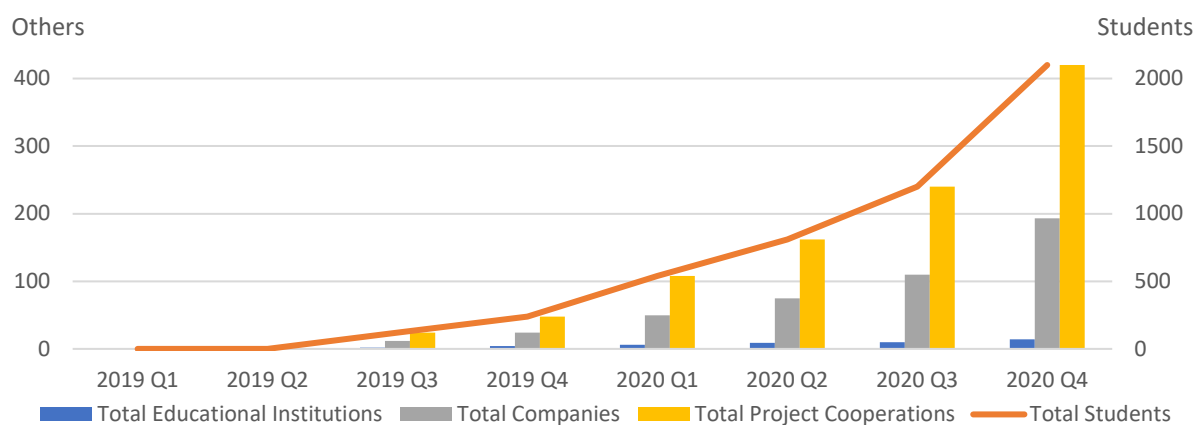


Figure 8: Number of platform users & projects

Stage 4 – Expand services (from February’20): After reaching a critical number of students with project history, the development of a “talent-pool for recruitment” will be a crucial topic. By opening the talent-pool for partner organizations and headhunters, a new revenue stream will be implemented. Furthermore, the opportunities to expand to other academic areas like technology, that show a high student demand in the industry, as well as the expansion to other European countries, will be considered.

## 6.2 Marketing Strategy

PROCO will use two separate marketing strategies - one that targets educational institutions and organizations with a B2B approach, and one for students with a B2C emphasis.

Overall, PROCO is building an effective digital presence consisting of a landing page, web-app and social media channels, which will be played with customer-centered content. The digital presence will be supported by SEO and link-building initiatives.

Educational institutions and organizations: The marketing of PROCO focuses sharply on winning key operational partnerships and foster an excellent personal relationship towards educators and professionals. With strong direct marketing and sales approach consisting of cold calling and email marketing, a crucial userbase of educational institutions and organizations will be established. With social media marketing in the business platforms, LinkedIn and Xing, as well as participating and marketizing in meetups like career and education fairs, workshops and conferences, the platform will be promoted to new potential users.

Students: The student-oriented marketing strategy focuses on increasing brand awareness by marketizing through two main channels: social media and the educational institution's ecosystem. The social media strategy involves the platforms of Facebook, Instagram, LinkedIn, and Xing. Through target advertisements based on variables as demographics, personal interests, education level, and location, PROCO can accurately promote the platform towards high potentials. Furthermore, a strong relationship with the educational institutions will be used to increase PROCOs brand awareness with flyer, newsletter announcements, campus fairs, and campus promotions.

## 7. Financial Plan

There are three central financial criteria to PROCOs mission: (1) that the platform will always stay free for students, (2) educators can collaborate with an open trial version, and (3) to build a financially sustainable organization within two years. PROCOs projection achieves all of these goals (see appendix 1).

### 7.1 Revenue

Total revenue consists of three individual streams, with companies being the primary source of income:

- The main revenue driver in the short-term perspective are organizations paying per project and contributing approx. 88% to the total revenue with €28.800 in 2019 and €304.560 in 2020.
- After a successful starting phase, organizations will slowly be transferred to the cooperate package with a turnover of €24.000 in 2020. In the long-term, the cooperate package is projected to develop towards the main income stream.

- The revenue of “premium” educational institutions only accounts for a small share of sales and is mainly used for the commitment reasons with €18.750 in 2020.

## 7.2 Costs

During the first two years, the accumulated total cost of PROCO is estimated to be around €627.954.

Over 85% of all costs amount to fix costs, with personnel and miscellaneous expenses as the most significant cost drivers:

- Personnel costs are expected to reach €163.000 in 2019 and €304.000 in 2020. The salaries of the three founders are only paid out if the company develops according to the business plan and can be deferred individually. However, personnel costs will increase significantly in further development, as employees in the IT, sales and marketing areas are hired.
- Miscellaneous costs mainly comprise office rent and administrative expenses as lawyer, insurance and drawing up the partnership agreement. The miscellaneous fix costs are around €50.000 for each of the first two years.

The variable costs of PROCO mainly relate to marketing expenses, with a focus on direct marketing through low-cost marketing channels such as social media marketing, search engine marketing, and offline marketing promotions. The most significant variable cost are the project incentives for premium educational institutions:

- The project incentive promotion contains €50 per initiated project collaboration. It starts in 2020 with an estimated number of 385 collaborations and a total incentive value of €19.260.

## 7.3 Customer Acquisition Cost (CAC) & Customer Lifetime Value (CLV)

The customer acquisition cost (CAC) of PROCO is strongly affected by the number of new customers as well as the related personnel and marketing costs. As organizations “Pay per Project” is the largest segment, it faces the lowest acquisition cost with €1.840 in the first and €950 in the second year. The other segment’s value is between €9.761 and €14.332 in the first two years (see figure 9).

The customer lifetime value (CLV) defines the estimated value of a future relationship with a customer. Educational Institutes point a higher customer lifetime value of up to €82,468, based on their multiplier effect of project cooperations and the profit resulting thereof, combined by their low segment number with a long lifespan (see figure 9). The relatively low value of the

organizations “Pay per Project” segment indicates a low-level of dependence on individual organizations as revenue is well distributed among various customers.

	Customer Acquisition Cost		Customer Lifetime Value	
	2019	2020	2019	2020
Educational Institutions - Free	11.038 €	12.249 €	24.486 €	67.065 €
Educational Institutions - Premium	n.a.	14.951 €	n.a.	66.898 €
Organizations - Pay per Project	1.840 €	950 €	2.721 €	8.940 €
Organizations - Corporate Package	n.a.	14.332 €	n.a.	67.337 €

Figure 9: Customer Acquisition Cost & Customer Lifetime Value

## 7.4 Investments and Capital Requirements

Initial investment costs to launch the company are primarily 1) the creation and development of the platform, and 2) sales/marketing costs.

According to projections, a total investment of €20.000 to €25.000 is necessary to launch the platform (excluding founder wages). This amount will be accomplished by bootstrapping to maintain full control over all decisions. Investors and financing rounds will cover the total capital requirement for the first two years of €627.954.

## 7.5 Profit Development and Expectation

The first financial year will show a negative operational cash flow of €-202.405, due to the starting investment costs, and as sales are just starting up in Q3 2019. Towards the last quarter of the second financial year, a positive operational cash flow is expected with €25.914, while the total amount in 2020 stays negative with a total of €-58.785. By 2020, PROCO will show a negative cumulative cash flow of €-297.514 (see appendix 2).

## 7.6 Risk Analysis (SWOT)

### Strength:

- Simple market entry: The PROCO team has all the qualified expertise and network to develop the platform with a business model, that is so far not available in the German market.
- Proof of Concept of the business model: The concept behind this platform is already operated successfully in other countries – i.e., with Demola (Europe), Riipen (North America) This means possible teething troubles of the service can be avoided.
- Easily scalable: The business model is easy to scale with relatively little effort or investment. Therefore, it can easily be internationalized towards the DACH region or

adapted to other product and service markets such as technical study areas with high employee demand from the industry side.

Weakness:

- The launch of the business idea: There could already be a team working on this idea and daring to enter the market before PROCO, which could be aggravated by direct competition.
- Legal issues: The provision of real-industry challenges leads to sensitive data and knowledge transfers between the stakeholders. Therefore, it is essential to clarify the legal topics of non-disclosure agreements and intellectual property in advance.

Opportunities:

- Market size: Germany offers the highest number of companies and educational institutions in Europe. PROCO offers all stakeholders a unique platform to get together better through open innovation, recruitment, and marketing.
- Market trends: 1) The number of (business) students in Germany is increasing every year. 2) Experiential Learning through cooperations is getting more popular at higher educational institutions. 3) Declining working-age population and skills mismatch in Germany are intensifying.

Threats:

- The market does not accept the idea: There is a possibility that the concept gets not accepted in the market due to a supply and demand mismatch, that educational institutions avoid commitment or because of temporal coincidence. However, the proof of concept in other countries as well as the first testing speaks against this.
- Emerging competition: Competition must always be kept in mind. The idea could be copied at any time, as the technology or system behind it is difficult to protect.

## 8. Operations and Management Roles

PROCOs management team is comprised of business, finance, and software development leaders:

**Moritz Wilhelm (Co-founder and CEO)**

Moritz is the strategic head of PROCO with the focus on partnership development. He holds a B.A. of Fashion Management from the Mediadesign Hochschule of Munich. In January 2019, he will graduate with a Master in International Management at Nova SBE. By working for international companies like Amazon, Payback, and Diesel in the areas of account management,

business development, and Marketing, Moritz gained experience and knowledge in the digital sectors of industry leaders. Furthermore, in September 2018 he co-founded the Nova Creative Hub, a student association, that focuses on the creative development for business students which has impacted since its start over 200 students.

#### **Julian Harzheim (Co-founder and CFO)**

Julian is PROCOs head of development and finance. With a B.Sc. in Business Administration from the Cologne Business School, he is currently pursuing a CEMS Master in Finance at Nova SBE and the Indian Institute of Management in Calcutta. Julian has gained knowledge and experience in the field of business development at companies like BCG digital Ventures, Delivery Hero and Project A Ventures. Moreover, he initiated and co-founded the Nova Creative Hub. His hands-on approach and valuable network makes him a crucial part of PROCOCO.

#### **Rui Borges (Co-founder and CTO)**

Rui is the technical head of PROCOCO. After graduating with B.Sc. in Software Engineering, he is currently pursuing an M.Sc. in Software Engineering at the Polytechnic Institute of Setúbal. Next, to his studies, Rui is expanding his network and knowledge in the educational sector as an Assistant Professor and works as a Software Development Consultant for KCSiT. The compelling mix of his educational and professional background makes him the perfect team leader in managing as well as building the technical side of PROCOCO.

The management team of PROCOCO will be supported through the expertise of experts from the educational and business field, to ensure a successful and sustainable development.

<b>Advisor</b>	<b>Experience</b>
Leid Zejnilović	Assistant Professor at Nova SBE and Universidade Nova de Lisboa for the area of Open and user innovation, Technology strategy, Data Science; Co-founder of Orka
Prof. Dr. Thomas Siegel	Professor at Mediadesign University Munich for taxation and entrepreneurship; Founder of the Dr. Sigel Tax Consultancy which focuses on start-ups, business consulting and international tax law
Maren Müller-Bierbaum	Career & Cooperation Development Director at Mediadesign University Munich
Rui Gouveia	Founder and CIO of the ComOn Group and Build Up Labs

*Figure 10: PROCOs Advisors*



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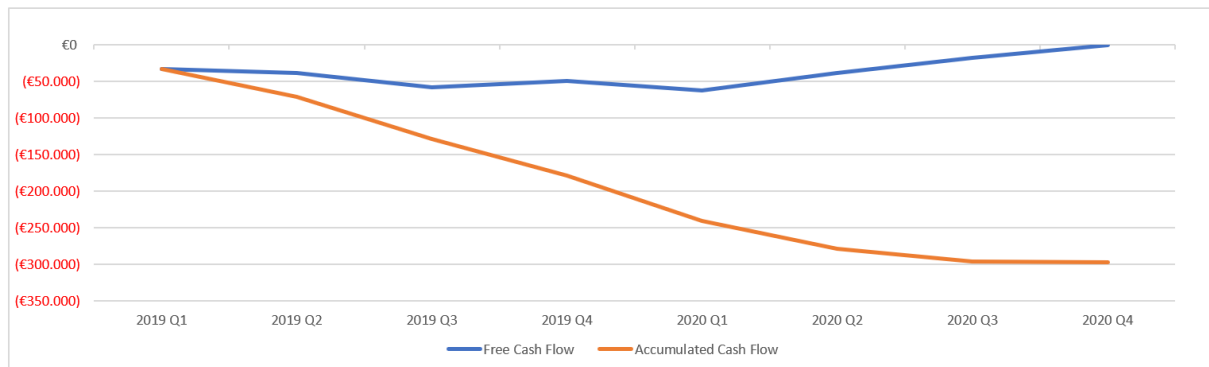
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## 10. Appendix

		2019 Q1	2019 Q2	2019 Q3	2019 Q4	2019E	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2020E
Revenue	Quarter N	1	2	3	4		5	6	7	8	
<b>Educational Institutions - Free</b>											
Number of Educational Institutions		0	0	2	4	2	4	6	6	8	6
Average Price		- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
Revenue		- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
<b>Educational Institutions - Premium</b>											
Number of Educational Institutions		0	0	0	0	0	2	3	4	6	6
Average Price		1.250 €	1.250 €	1.250 €	1.250 €	5.000 €	1.250 €	1.250 €	1.250 €	1.250 €	1.250 €
Revenue		- €	- €	- €	- €	- €	2.500 €	3.750 €	5.000 €	7.500 €	18.750 €
<b>Organization - Pay per Project</b>											
# Project Organization		0	0	24	48	72	97	146	216	302	761
Average Price		400 €	400 €	400 €	400 €	400 €	400 €	400 €	400 €	400 €	400 €
Revenue		- €	- €	9.600 €	19.200 €	28.800 €	38.880 €	58.320 €	86.400 €	120.960 €	304.560 €
<b>Organization - Corporate Package</b>											
Number of Organization		0	0	0	0	0	1	2	2	3	3
Average Price		3.000 €	3.000 €	3.000 €	3.000 €	3.000 €	3.000 €	3.000 €	3.000 €	3.000 €	3.000 €
Revenue		- €	- €	- €	- €	- €	3.000 €	6.000 €	6.000 €	9.000 €	24.000 €
<b>Total Revenue</b>		- €	- €	9.600 €	19.200 €	28.800 €	44.380 €	68.070 €	97.400 €	137.460 €	347.310 €
<b>Costs</b>											
<b>Personnel</b>											
CEO - Co-Founder		10.000 €	10.000 €	10.000 €	10.000 €	40.000 €	10.000 €	10.000 €	10.000 €	10.000 €	40.000 €
CFO - Co-Founder		10.000 €	10.000 €	10.000 €	10.000 €	40.000 €	10.000 €	10.000 €	10.000 €	10.000 €	40.000 €
CTO - Co-Founder		10.000 €	10.000 €	10.000 €	10.000 €	40.000 €	10.000 €	10.000 €	10.000 €	10.000 €	40.000 €
Developer - TBD		- €	- €	11.500 €	11.500 €	23.000 €	11.500 €	11.500 €	11.500 €	11.500 €	46.000 €
Sales - TBD		- €	- €	10.000 €	10.000 €	20.000 €	10.000 €	10.000 €	10.000 €	10.000 €	40.000 €
Sales - TBD		- €	- €	- €	- €	- €	10.000 €	10.000 €	10.000 €	10.000 €	40.000 €
Marketing - TBD		- €	- €	- €	- €	- €	10.000 €	10.000 €	10.000 €	10.000 €	40.000 €
Intern		- €	- €	- €	- €	- €	4.500 €	4.500 €	4.500 €	4.500 €	18.000 €
<b>Total Salary Expenditures</b>		30.000 €	30.000 €	51.500 €	51.500 €	163.000 €	76.000 €	76.000 €	76.000 €	76.000 €	304.000 €
<b>Marketing Spending</b>											
Adwords		- €	- €	600 €	630 €	1.230 €	662 €	695 €	729 €	766 €	2.851 €
Social / display ads		- €	- €	600 €	630 €	1.230 €	662 €	695 €	729 €	766 €	2.851 €
Offline Marketing (Flyer, Posters, Fairs,...)		- €	- €	600 €	630 €	1.230 €	662 €	695 €	729 €	766 €	2.851 €
Marketing Contractors (writer, SEO agency...)		- €	- €	300 €	315 €	615 €	331 €	347 €	365 €	383 €	1.426 €
Project Incentive Fee (Educational Institutions - Premium)		- €	- €	- €	- €	- €	1.620 €	2.430 €	4.800 €	6.720 €	15.570 €
<b>Total Marketing Spending</b>		- €	- €	2.100 €	2.205 €	4.305 €	3.935 €	4.861 €	7.353 €	9.400 €	25.549 €
<b>Hosting</b>											
Hosting & Bandwidth		3.600 €	3.600 €	3.600 €	3.600 €	14.400 €	3.600 €	3.600 €	3.600 €	3.600 €	14.400 €
<b>Total Hosting</b>		3.600 €	3.600 €	3.600 €	3.600 €	14.400 €	3.600 €	3.600 €	3.600 €	3.600 €	14.400 €
<b>Miscellaneous</b>											
Technical Contractors (designer, developers...)		- €	900 €	900 €	900 €	2.700 €	900 €	900 €	900 €	900 €	3.600 €
Lawyer and accountants		- €	- €	600 €	600 €	1.200 €	600 €	600 €	600 €	600 €	2.400 €
Travel		3.600 €	3.600 €	3.600 €	3.600 €	14.400 €	3.600 €	3.600 €	3.600 €	3.600 €	14.400 €
Office rent & utilities		4.500 €	4.500 €	4.500 €	4.500 €	18.000 €	4.500 €	4.500 €	4.500 €	4.500 €	18.000 €
Telecommunications, internet, office supplies		3.000 €	3.000 €	3.000 €	3.000 €	12.000 €	3.000 €	3.000 €	3.000 €	3.000 €	12.000 €
Insurance		- €	- €	600 €	600 €	1.200 €	600 €	600 €	600 €	600 €	2.400 €
<b>Total Miscellaneous</b>		11.100 €	12.000 €	13.200 €	13.200 €	49.500 €	13.200 €	13.200 €	13.200 €	13.200 €	52.800 €
<b>Total Costs</b>		44.700 €	45.600 €	70.400 €	70.505 €	231.205 €	96.735 €	97.661 €	100.153 €	102.200 €	396.749 €
<b>Profit &amp; Loss</b>											
EBITDA		-44.700 €	-45.600 €	-60.800 €	-51.305 €	-202.405 €	-52.355 €	-29.591 €	- 2.753 €	35.260 €	49.439 €
EBITDA margin		n.a.	n.a.	-633%	-267%	-703%	-118%	-43%	-3%	26%	-14%
Depreciation and Amortisation		375 €	375 €	731 €	1.320 €	2.801 €	1.879 €	2.660 €	3.402 €	4.107 €	12.047 €
Maintenance CAPEX as % of sales											
Net PPE		7.500 €	14.625 €	26.394 €	37.574 €	86.093 €	53.195 €	68.036 €	82.134 €	95.527 €	298.892 €
CAPEX		7.500 €	7.500 €	12.500 €	12.500 €	40.000 €	17.500 €	17.500 €	17.500 €	17.500 €	70.000 €
As a % of Net PPE		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Earnings before taxes		-45.075 €	-45.975 €	-61.531 €	-52.625 €	-205.206 €	-54.234 €	-32.251 €	- 6.154 €	31.153 €	- 61.486 €
EBIT margin		n.a.	n.a.	-641%	-274%	-713%	-122%	-47%	-6%	23%	-18%
Tax rate		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Taxes		- €	- €	- €	- €	- €	- €	- €	- €	9.346 €	- €
Net income		-45.075 €	-45.975 €	-61.531 €	-52.625 €	-205.206 €	-54.234 €	-32.251 €	- 6.154 €	21.807 €	- 70.832 €
Net income margin		n.a.	n.a.	-641%	-274%	-713%	-122%	-47%	-6%	16%	-20%
Growth rate		n.a.	2%	34%	14%	n.a.	3%	41%	81%	454%	65%

Appendix 1: Financial Model

Cash Flow	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2019E	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2020E
Net Income	- 45.075 €	- 45.975 €	- 61.531 €	- 52.625 €	- 205.206 €	- 54.234 €	- 32.251 €	- 6.154 €	- 21.807 €	- 70.832 €
Depreciation & Amortisation	375 €	375 €	731 €	1.320 €	2.801 €	1.879 €	2.660 €	3.402 €	4.107 €	12.047 €
<b>Operational Cash Flow</b>	<b>- 44.700 €</b>	<b>- 45.600 €</b>	<b>- 60.800 €</b>	<b>- 51.305 €</b>	<b>- 202.405 €</b>	<b>- 52.355 €</b>	<b>- 29.591 €</b>	<b>- 2.753 €</b>	<b>- 25.914 €</b>	<b>- 58.785 €</b>
Growth rate	n.a.	2%	33%	-16%	n.a.	2%	-43%	-91%	-1041%	-70,96%
Gross CAPEX	7.500 €	7.500 €	12.500 €	12.500 €	40.000 €	17.500 €	17.500 €	17.500 €	17.500 €	70.000 €
Depreciation & Amortisation	- 375 €	- 375 €	- 731 €	- 1.320 €	- 2.801 €	- 1.879 €	- 2.660 €	- 3.402 €	- 4.107 €	- 12.047 €
Net CAPEX	7.125 €	7.125 €	11.769 €	11.180 €	37.199 €	15.621 €	14.840 €	14.098 €	13.393 €	57.953 €
Net working capital	- 4.900 €	- 5.200 €	- 3.492 €	- 13.249 €	- 13.249 €	- 38.356 €	- 62.211 €	- 91.297 €	- 131.476 €	- 131.476 €
Change in Net Working Capital	4.900 €	300 €	- 8.692 €	- 9.757 €	- 13.249 €	- 25.107 €	- 23.855 €	- 29.086 €	- 40.179 €	- 118.227 €
<b>Investment Cash Flow</b>	<b>12.025 €</b>	<b>7.425 €</b>	<b>3.077 €</b>	<b>1.423 €</b>	<b>23.950 €</b>	<b>- 9.486 €</b>	<b>- 9.015 €</b>	<b>- 14.988 €</b>	<b>- 26.785 €</b>	<b>- 60.274 €</b>
Growth rate	n.a.	-38%	-59%	-54%	n.a.	-766%	-5%	66%	79%	-351,66%
<b>Free Cash Flow</b>	<b>-32.675 €</b>	<b>-38.175 €</b>	<b>-57.723 €</b>	<b>-49.882 €</b>	<b>-178.455 €</b>	<b>-61.841 €</b>	<b>-38.606 €</b>	<b>-17.740 €</b>	<b>-871 €</b>	<b>-119.059 €</b>
<b>Financing Cash Flow</b>	<b>32.675 €</b>	<b>38.175 €</b>	<b>57.723 €</b>	<b>49.882 €</b>	<b>178.455 €</b>	<b>61.841 €</b>	<b>38.606 €</b>	<b>17.740 €</b>	<b>871 €</b>	<b>119.059 €</b>
<b>Accumulated Cash Flow</b>	<b>-32.675 €</b>	<b>-70.850 €</b>	<b>-128.573 €</b>	<b>-178.455 €</b>	<b>-178.455 €</b>	<b>-240.296 €</b>	<b>-278.902 €</b>	<b>-296.642 €</b>	<b>-297.514 €</b>	<b>-297.514 €</b>



Appendix 2: Cash Flow

Quarter based Overview	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2019E	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2020E
<b>Total Educational Institutions</b>	0	0	2	4	4	6	9	10	14	14
# Educational Institutions - Free	0	0	2	4	4	4	6	6	8	8
# Educational Institutions - Premium	0	0	0	0	0	2	3	4	6	6
<b>Total Students</b>	0	0	120	240	360	540	810	1.200	1.680	4.230
<b>Total Organizations</b>	0	0	12	24	24	40	51	64	79	79
# Organization - Pay per Project	0	0	12	24	24	39	49	62	76	76
# Organization - Corporate Package	0	0	0	0	0	1	2	2	3	3
<b>Total Project Cooperations</b>	0	0	24	48	72	108	162	240	336	846
# Project Cooperations - EI - Free	0	0	24	48	72	76	113	144	202	535
# Project Cooperations - EI - Premium	0	0	0	0	0	32	49	96	134	311
# Project Cooperations - Organization - Pay per Project	0	0	24	48	72	97	146	216	302	761
# Project Cooperations - Organization - Corporate	0	0	0	0	0	11	16	24	34	85

Appendix 3: Number of Accounts and Projects